MOTOROLA

FAX TRANSMITTAL SHEET



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10 **Number of Pages (including this page)**

**Date:** October 12, 2004

**To:** Examiner Han, C. – Group 2665

**Location:** United States Patent and Trademark Office

**Fax No.:** 703-872-9306

**From:** Steven A. May (Registration No. 44,912)

**Subject:** Serial No. 09/657,915 –Scribano et al.



MESSAGE:

Enclosed herewith, please find an APPEAL BRIEF for filing in the below-identified application.

## PLEASE GIVE THESE PAPERS TO:

| | |
|---|---|
| EXAMINER: | **Han, C.** |
| GROUP ART UNIT: | 2665 |
| SERIAL NO.: | 09/657,915 |
| FILED: | 09/08/2000 |
| INVENTOR: | Scribano et al. |
| ATTORNEY DOCKET NO.: | CE09396R C02 |

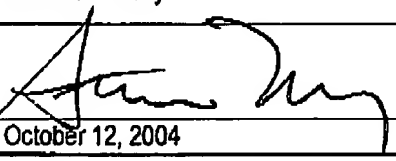
PTO/SB/21 (08-00)

| | | | |
|---|---|---|---|
| **TRANSMITTAL FORM** (to be used for all correspondence after initial filing) | | Application Number | 09/657,915 |
| | | Filing Date | September 8, 2000 |
| | | First Named Inventor | Scribano et al. |
| | | Group Art Unit | 2665 |
| | | Examiner Name | Han, C. |
| Total Number of Pages in this Submission | 4 | Attorney Docket Number | CE09396R C02 |

## ENCLOSURES (check all that apply)

| | | |
|---|---|---|
| [X] Fee Transmittal Form | [ ] Assignment Papers (for an Application) | [ ] After Allowance Communication to Group |
| [ ] Fee Attached | [ ] Drawing(s) | [ ] Appeal Communication to Board of Appeals and Interferences |
| [ ] Amendment/Reply | [ ] Licensing-Related papers | [X] Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) |
| [ ] After Final | [ ] Petition | [ ] Proprietary Information |
| [ ] Affidavits/Declaration(s) | [ ] Petition to Convert to a Provisional Application | [ ] Status Letter with appropriate copies |
| [ ] Extension of time Request | [ ] Power of Attorney, Revocation, Change of Correspondence Address | [ ] Other Enclosure(s) (please identify below) |
| [ ] Express Abandonment Request | | [ ] Response to Restriction Requirement |
| [ ] Information Disclosure Statement | [ ] Terminal Disclaimer | [ ] Associate Power of Attorney |
| [ ] Certified Copy of Priority Documents | [ ] Request for Refund | [ ] RCE |
| [ ] Response to Missing Parts/ Incomplete Application | [ ] CD, Number of CDs | [ ] Copy of Notice to File Missing Parts |
| [ ] Response to Missing Parts Under 37 CFR 1.52 or 1.53 | Remarks | [ ] Transmittal of Formal Drawings |
| | | [ ] Response to Notice of Non-Recordation of Document |

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|---|---|---|---|
| Firm or Individual | Steven A. May | Registration No. | 44,912 |
| Signature |  | | |
| Date | October 12, 2004 | | |

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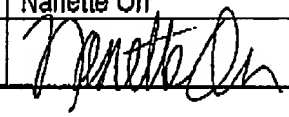
| | | | |
|---|---|---|---|
| Typed or printed name | Nanette Orr | | |
| Signature |  | Date | October 12, 2004 |

# FEE TRANSMITTAL

Patent fees are subject to annual revision

TOTAL AMOUNT OF PAYMENT ($)

| Complete if Known | |
|---|---|
| Application Number | 09/657,915 |
| Filing Date | September 8, 2000 |
| First Named Inventor | Scribano et al. |
| Examiner Name | Han, C. |
| Group Art Unit | 2665 |
| Attorney Docket No. | CE09396R C02 |

## METHOD OF PAYMENT

1. [X] The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account Number: 50-2117

Deposit Account Name: Motorola, Inc.

[X] Charge Any Additional Fee required under 37 CFR 1.16 and 1.17

[ ] Applicant claims small entity status. See 37 CFR 1.27

2. [ ] Payment Enclosed:

[ ] Check [ ] Credit Card [ ] Money Order [ ] Other

## FEE CALCULATION

### 1. BASIC FILING FEE

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | | Fee Paid |
|---|---|---|---|---|---|
| 1001 | 750 | 2001 | 375 | Utility filing fee | |
| 1002 | 330 | 2002 | 165 | Design filing fee | |
| 1003 | 520 | 2003 | 260 | Plant filing fee | |
| 1004 | 750 | 2004 | 375 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |

SUBTOTAL (1) ($) 0.00

### 2. EXTRA CLAIM FEES

| | | Previously Paid** | | Extra Claims | | Fee from below | | Fee Paid |
|---|---|---|---|---|---|---|---|---|
| Total Claims | | - 20 | = | | X | 18 | = | |
| Independent Claims | | - 3 | = | | X | 84 | = | |
| Multiple Dependent | | | | | | 280 | = | |

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description |
|---|---|---|---|---|
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 |
| 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 |
| 1203 | 280 | 2203 | 140 | Multiple dependent claim, if not paid |
| 1204 | 84 | 2204 | 42 | * Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | *Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) ($) 0.00

**OR NUMBER PREVIOUSLY PAID, IF GREATER THAN STANDARD ALLOWANCE.
*For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | |
|---|---|---|---|---|---|
| 1051 | 130 | 2051 | 65 | Surcharge – late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge – late Provisional filing | |
| 1053 | 130 | 1053 | 130 | Non-English specification | |
| 1812 | 2520 | 1812 | 2520 | For filing a request for ex parte Reexamination | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 | 1840* | 1805 | 1840* | Requesting publication of SIR after Examiner action | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1252 | 410 | 2252 | 205 | Extension for reply within second month | |
| 1253 | 930 | 2253 | 465 | Extension for reply within third month | |
| 1254 | 1450 | 2254 | 725 | Extension for reply within fourth month | |
| 1255 | 1970 | 2255 | 985 | Extension for reply within fifth month | |
| 1401 | 320 | 2401 | 160 | Notice of Appeal | |
| 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal | |
| 1403 | 280 | 2403 | 140 | Request for oral hearing | |
| 1451 | 1510 | 1451 | 1510 | Petition to institute a public use proceeding | |
| 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | |
| 1453 | 1300 | 2453 | 650 | Petition to revive - unintentional | |
| 1501 | 1300 | 2501 | 650 | Utility issue fee (or reissue) | |
| 1502 | 470 | 2502 | 235 | Design issue fee | |
| 1503 | 630 | 2503 | 315 | Plant issue fee | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of IDS | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | |
| 1809 | 750 | 2809 | 375 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 750 | 2810 | 375 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |

Other fee (specify)

* Reduced by Basic Filing Fee paid SUBTOTAL (3) ($)

## SUBMITTED BY

Complete (if applicable)

| Name (Print/Type) | Steven A. May | Registration No. | 44,912 | Telephone | (847) 576-3635 |
|---|---|---|---|---|---|
| Signature | | Date | October 12, 2004 | | |

- PATENT -

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | | |
|---|---|---|---|
| APPLICANT: | Scribano et al. | EXAMINER: | Han, C. |
| SERIAL NO.: | 09/657,915 | ART UNIT: | 2665 |
| FILED: | 09/08/00 | CASE NO.: | CE08306R C02 |
| ENTITLED: | PACKET TRANSMISSION METHOD | | |

Motorola, Inc.
Corporate Offices
1303 E. Algonquin Road
Schaumburg, IL 60196
October 12, 2004

**APPEAL BRIEF UNDER 37 CFR 1.192**

Certificate of Transmission under 37 CFR 1.8

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on October 12, 2004

Motorola, Inc. 10/12/2004
Name of applicant, assignee, or Registered Representative — Date

Signature

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Alexandria, Va. 22313-1450

Commissioner:

The appellants hereby respectfully submit the following Appeal Brief in response to a Final Office Action dated March 11, 2004, and a Notice of Appeal filed August 11, 2004.

1. REAL PARTY IN INTEREST

The real party in interest in this appeal is Motorola, Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

This is an appeal from a Final Office Action, dated March 11, 2004. Claims 1-5 are appealed. In a first Office Action dated December 5, 2003 (paper no. 5), the Examiner rejected claims 1-4 under 35 U.S.C. §102(e) as being anticipated by Heikkinen et al. (WO 200041431, hereinafter referred to as "Heikkinen").

In an Amendment dated January 9, 2004, the appellants amended claims 1, 3, and 4 and added a new claim 5. Claim 1, as amended, taught a backhauling method including determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and a network controller wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package.

In the Final Office Action, dated March 11, 2004, the Examiner rejected claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo (U.S. patent no. 6,587,465). No claims were allowed.

A Response to the Final Office Action was filed on May 11, 2004, and is currently pending. No claims were amended by the Response to the Final Office Action. No Advisory Action has been received by the appellants. No claims have been allowed. The pending claims 1-5 are reproduced below in the attached Appendix.

4. STATUS OF AMENDMENTS

A Response to the Final Office Action was filed on May 11, 2004, and is currently pending. In the Response to the Final Office Action, the appellants responded to the Examiner's rejections of claims 1-5 a nd requested that the Examiner reconsider the rejection of the appellants' claims as amended by the amendments of January 9, 2004. The Response after Final did not further amend any claims. No Advisory Action has been received.

5. SUMMARY OF INVENTION

The appellant's invention provides a wireless communication system that includes base station transceivers that communicate with a network controller and that provide for wireless communication with mobile stations. Each base station transceiver controls a header for a packet frame to be communicated between the base station transceiver and the network controller, wherein a portion of the header identifies the frame as one containing no data package. For example, the data bits of the header field may contain a predetermined bit pattern for a frame containing no data package. When a decoding metric with respect to a received frame passes a threshold, the data payload received by the base station transceiver from the mobile station may be dropped and the header information replaced by the specified bit pattern.

Claim 1, as amended, provides a method for backhauling data. The method includes steps of determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and the network controller wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package. (Figures 1 and 2; page 3, line 3 to page 5, line 10.)

6. ISSUES

Issue

Whether claim 1 is unpatentable under 35 U.S.C. §103(a) over Heikkinen in view of Dempo.

7. GROUPING OF CLAIMS

Appellants designate the following groups of claims:
Group I: claims 1-5.

8. ARGUMENT

(i) Rejection under 35 U.S.C. §112, first paragraph:

None

(ii) Rejection under 35 U.S.C. §112, second paragraph:

None

(iii) Rejection under 35 U.S.C. §102:

None

(iv) Rejection under 35 U.S.C. §103:

The Examiner rejected claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo. Specifically, with respect to claim 1, the Examiner contended that Heikkinen teaches controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as being defective (page 9, lines 26-27; page 11, line 29) and transmitting the frame to the network controller with the constructed header.

The Examiner acknowledged that Heikkinen does not teach determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, and in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package. However, the Examiner contended that these steps are taught by Dempo (col. 7, lines 14-23; col. 12, lines 37-46).

The appellants respectfully disagree. Neither Heikkinen nor Dempo teaches backhauling a frame without a data package. Heikkinen teaches a base station that receives a frame from a mobile station. An uplink judging means of the base station judges a quality of the received frame. When the quality of the received frame falls below the predetermined threshold, the base station tags the frame with a flag indicating that the data is of unacceptable quality and forwards the frame, including the defective data and the flag, to a radio network controller (RNC). As acknowledged by the Examiner, Heikkinen does not teach the features of claim 1 of determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, and in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package.

Dempo teaches a base station that receives a frame from a mobile station that includes user data. A wireless communication layer terminating part of the base station makes a quality measurement, such as a field strength or an error rate measurement, with respect to the frame and then a quality checking part of the base station performs a quality check by comparing the measurement to quality information. When the quality measurement compares unfavorably with corresponding quality information, the quality checking part outputs an invalid data generated notice. Based on the invalid data

generated notice, the base station then generates a data packet that includes an valid/invalid data identifier that identifies the data as invalid data and that further includes the invalid user data or alternatively filler (dummy) data. The base station then conveys the data packet to a mobile switching center (MSC).

By contrast to Heikkinen and Dempo, claim 1 teaches a backhauling of a frame without any data package. The frame includes a header indicating that there is no data package as the frame is not intended to include, and correspondingly does not include, a data package. Such a frame is not taught by either Heikkinen or Dempo. If the RNC of Heikkinen or the MSC of Dempo received a frame without any data package, the RNC or MSC would not know what to make of the frame. By not passing up invalid data or filler data for a frame, the teachings of claim 1 permit a reduction of an average backhaul bandwidth for a communication system and a corresponding improvement in system capacity, which can be a constraining factor as wireless communication systems provide ever increasing amounts of data services. Accordingly, the appellants respectfully submit that claim 1 is not unpatentable over the prior art of record.

Regarding dependent claims 2-5, because claims 2-5 depend directly or indirectly from independent claim 1, the appellants respectfully submit that claims 2-5 are not unpatentable over the prior art of record.

(v) Other rejections

None

8. CONCLUSION

For the above reasons, the appellant respectfully submits that the rejection of claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo is in error and should be reversed and the claims allowed.

Respectfully submitted,
Gino Scribano et al.

By: _____

Steven A. May
Attorney for Applicants
Registration No. 44,912
Phone No.: 847/576-3635
Fax No.: 847/576-3750

## APPENDIX

1. For a wireless system including base station transceivers to communicate with at least one mobile station, the base station transceivers communication with a network controller, a method comprising the steps of:

determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric;

in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and the network controller wherein a portion of the header identifies the frame as one containing no data package; and

transmitting the frame to the network controller with the constructed header and without the data package.

2. The method according to claim 1 wherein data bits of a header field contain a predetermined bit pattern for a frame including no data package.

3. The method according to claim 1 wherein the information received by the base station from the mobile station is dropped, and the header information is replaced with the specified bit pattern, if a decoding metric passes a threshold.

4. The method according to claim 1 wherein the information received by the base station from the mobile station is dropped and the header information is replaced with the specified bit pattern if a CRC for the frame received from the mobile station fails.

5. The method according to claim 1 wherein the decoding metric comprises at least one of a finger lock status, a symbol error rate, a bit error rate, and signal-to-interference ratio, and a signal-to-noise ratio.